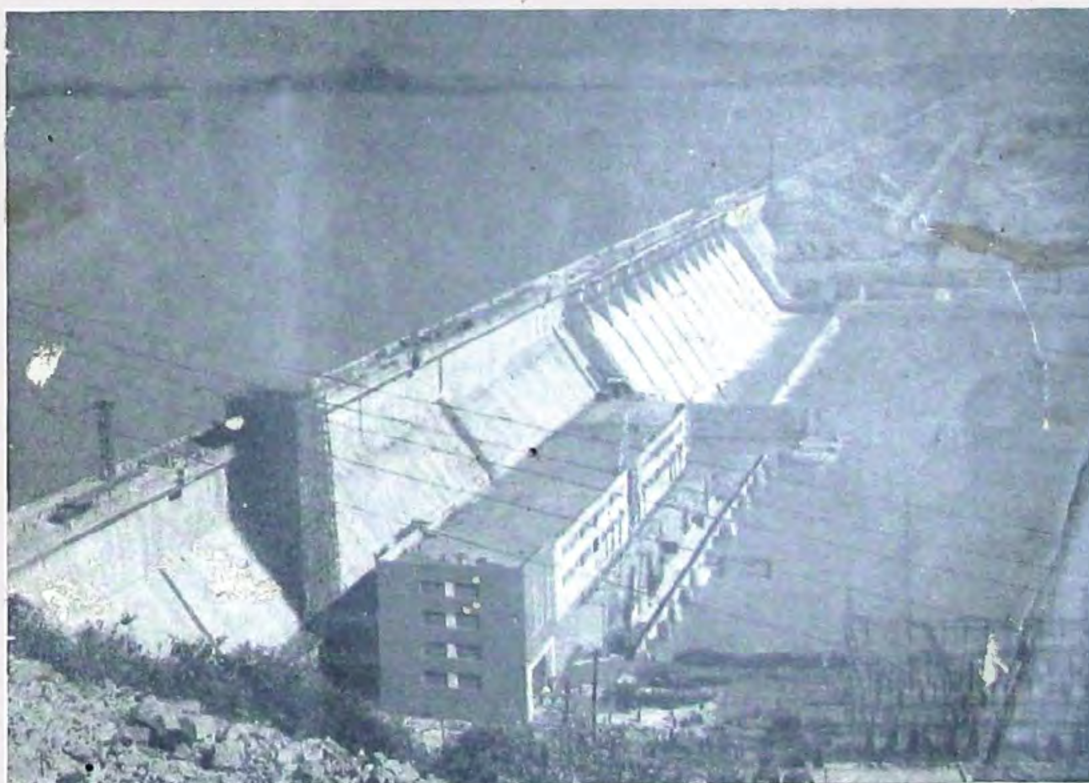


Hirakud Project



The Longest Dam in the World.

13th JANUARY 1957

With independence and merger of Eastern States ORISSA became a major state on the East Coast of India.



THREE major rivers traverse across the State. They are; The MAHANADI the BRAHMANI and the BAITARANI.

The MAHANADI

The Mahanadi **THE GREAT RIVER** *drains an area of 51,000 Sq. Miles; more than twice the area of Ceylon.*

It carries annually

74 MILLION ACREFEET

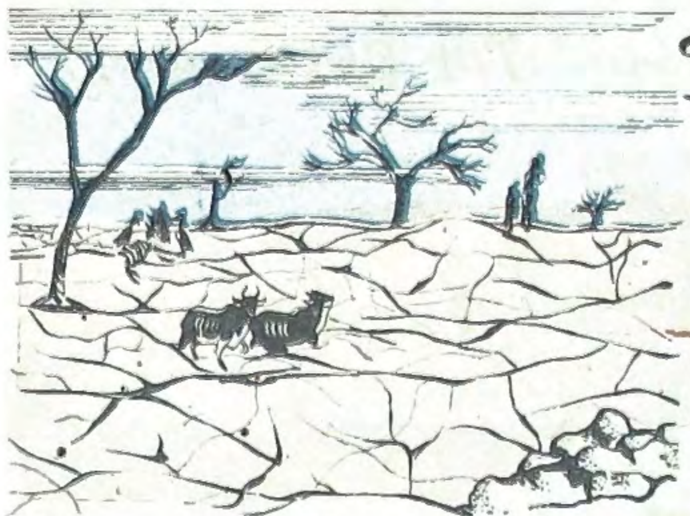
of water, an amount sufficient to cover the whole of Orissa two feet deep.





FLOODS *in Mahanadi are frequent. The State is constantly threatened by floods.*

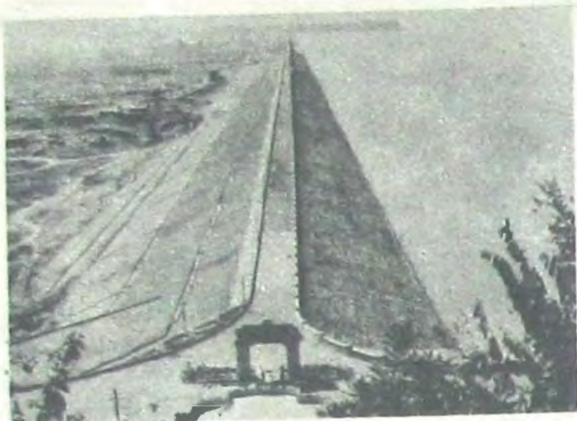
or **FAMINE**



These two twin spectres have been constantly haunting this rich country.

To harness the **TURBULENT WATERS** *of the Mahanadi and turn it from a source of destruction in to the service of man*





HIRAKUD DAM

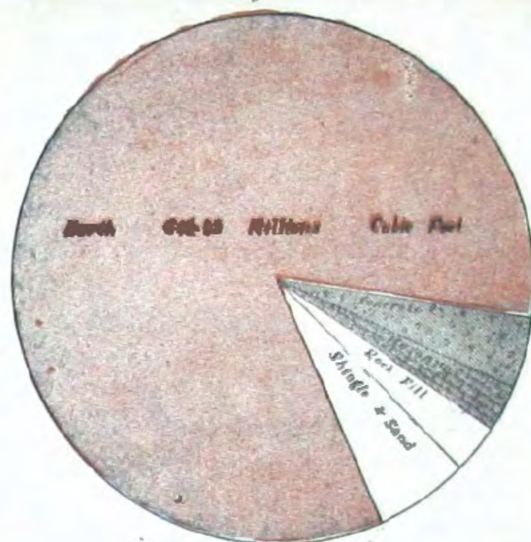
has been built.

It is the longest Dam in the world.

Has the largest cubical contents.



650 million cubic feet of Earth and 40 million cubic feet of concrete and masonry,



sufficient to make a road 25' wide and pave it from Kanyakumari to Kashmir and Amritsar to Dibrugarh in Assam constitute the Bulk of Hirakud Dam.



LEFT SPILLWAY - DOWN STREAM

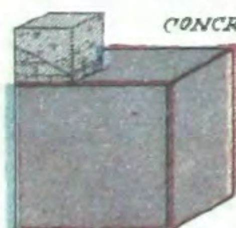


THREE TIMES as big as METTUR lake

and TWICE of TUNGABHADRA



CUBIC CONTENT



CONCRETE & MASONRY. 40 M. Cft.

EARTH 650 M. Cft.

HIRAKUD



EARTH 10 M. Cft.

MASONRY 82 M. Cft.

THUNGA BHADRA



MASONRY 54.6 M. Cft

METTUR

WATER SPREAD



HIRAKUD



THUNGA BHADRA



METTUR

RESERVOIR CAPACITY



HIRAKUD



THUNGA BHADRA



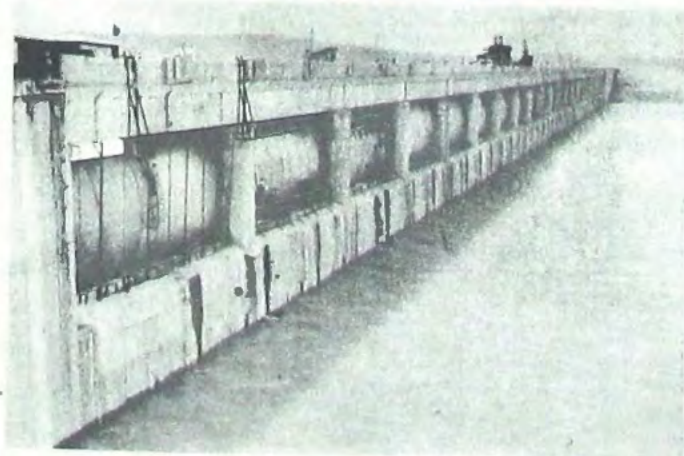
METTUR

HIRAKUD RESERVOIR.

The BIGGEST artificial LAKE in ASIA with an area of 288 Sq. MILES more than 4 times Bhakra lake and a shore line of over 400 miles.

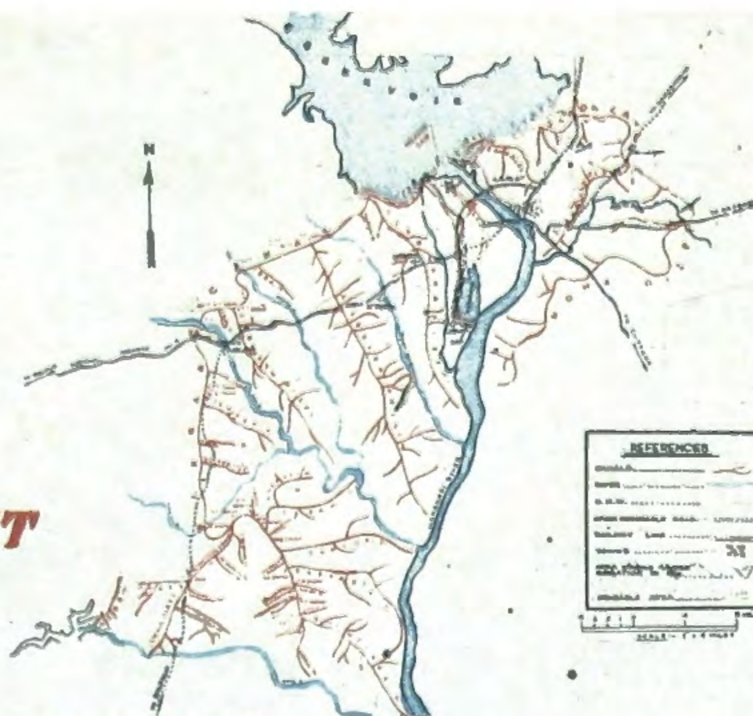


It has a capacity of 6·6 MILLION ACRE FEET; more than 1½ times the storage of all the Dams in the Damodar Valley.

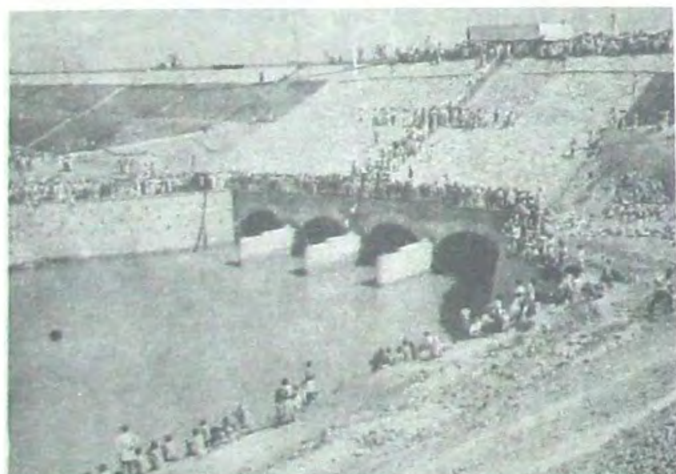


LEFT SPILLWAY-UPSTREAM

IRRIGATION



Irrigation is a **MAJOR BENEFIT** *from Hirkud Project.* **6,72,000** *acres in* **SAMBALPUR** *and* **BOLANGIR PATNA** *districts*



HEAD REGULATOR BARGARH

1867094 *in* **CUTTACK** *and* **PURI** *districts will be served by the Canal Systems producing*

200,000 TONS *of*

ADDITIONAL *food grains per year.*



POWER

With an installed capacity of 270 000 k.w Hirakud will be the BIGGEST BLOCK of Hydro-Electric Project in India.

Cauvery	—	59,200 KW
Tata-Khopoli	—	65,000 "
Andhra (B'bay)	—	69,000 "
Tata (B'bay)	—	110 000 "
Mandi (P)	—	48,000 "
Pykara	—	70,000 "
Mettur	—	40,000 "
Pallivasal	—	37,500 "
Papanasam	—	28,000 "
Jog Falls	—	120,000 "
Moyar	—	36,000 "
Ganguwal	—	48,000 "
Pathri	—	20,400 "
Sarda	—	41,400 "
Hirakud	—	2,70,000 KW

It will produce



over **1000 MILLION**

POWER HOUSE

UNITS of energy. The **TURBINES** and **GENERATORS** are the **BIGGEST** of this kind **SO FAR** installed in India. There will be in



GENERATOR ROOM

all **4** units of **37500** k.w.

and **5** units of **24000** k.w..

Over **600** *miles*

of High voltage



SWITCHYARD – 132 kV

Transmission lines

will carry this ***Power***



TRANSMISSON LINES – 132 kv

to the ***distant***

corners of the State

and ***Industries.***

CONSUMERS OF POWER.

The major consumers of Hirakud Power are

	K.W.
Aluminium Smelter	55,000
Steel and Fertilizers at Rourkela	60,000
Ferro-manganese Plant at Joda	16,000

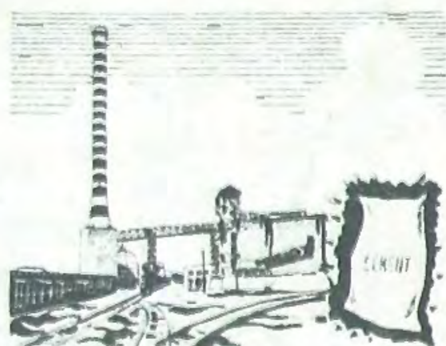






Cement at- K.W.

Rajgangpur. 5000

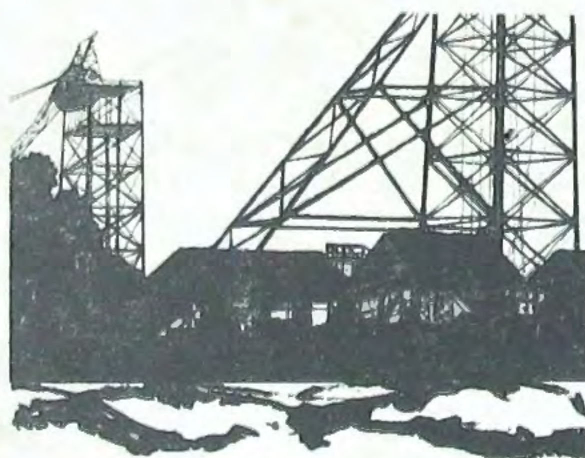


Paper Mills at- K.W.

Brajrajnagar. 4000

Mining loads - K.W.

at koira, Nuamundi etc. 14,000





Cuttack. K.W. 10,000

Bargarh. 3000



N

MADHYA PRADESH

BIHAR

JAMSHEDPUR

CHAIBASA

STEEL FACTORY 65000 KW

RAIRANGPUR

JOSHIPUR

SAMBALPUR

RAIRAKHOL

TALCHER

DHENKANAL

CUTTACK

NARSINGHPUR

PHULBANI

PATNAGARH

KHURDA ROAD

O R I S S A

REFERENCES

RIVERS

ROAD (METALLED)

ROAD (UNMETALLED)

RAILWAYS

POWER STATION

SUB STATION

TRANSMISSION LINES

132 KV D/C

FUTURE

132 KV S/C

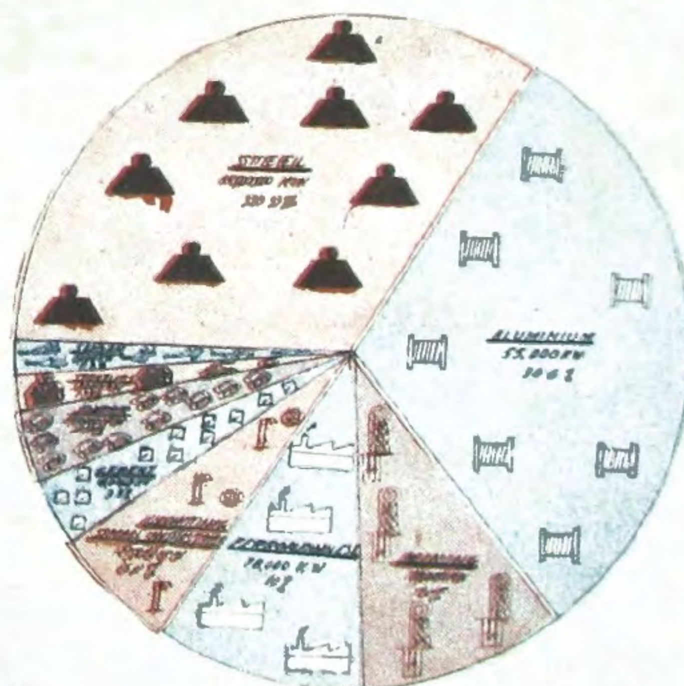
FUTURE

66 KV S/C

BOUNDARY LINE

SCALE MILES

TRANSMISSION SYSTEM



LOAD CHART



All for Happiness
&
Prosperity

MINISTRY OF IRRIGATION AND POWER

M S Thirumale Iyengar

Chief Engineer
Hirakud Dam Project

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